

ARTIFICIAL INTELLIGENCE IN CARS POWERS AN AI REVOLUTION IN THE AUTO INDUSTRY

AI has become a popular buzz word these days, but how does it actually work in autonomous vehicles?

Let us first look at the human perspective of driving a car with the use of sensory functions such as vision and sound to watch the road and the other cars on the road. When we stop at a red light or wait for a pedestrian to cross the road, we are using our memory to make these quick decisions. The years of driving experience habituate us to look for the little things that we encounter often on the roads — it could be a better route to the office or just a big bump in the road.

Building autonomous vehicles that drive themselves, but we want them to drive like human drivers do. That means, need to provide these vehicles with the sensory functions, cognitive functions (memory, logical thinking, decision-making and learning) and executive capabilities that humans use to drive vehicles. The automotive industry is continuously evolving to achieve exactly this over the last few years.

According to Gartner, by 2020, 250 million cars will be connected with each other and the infrastructure around them through various V2X (vehicle-to-everything communication) systems. As the amount of information being fed into IVI (in-vehicle infotainment) units or telematics systems grows, vehicles will be able to capture and share not only internal system status and location data but also the changes in its surroundings, all in real time. Autonomous vehicles are being fitted with cameras, sensors and communication systems to enable the vehicle to generate massive amounts of data which, when applied with AI, enables the vehicle to see, hear, think and make decisions just like human drivers do.

Prof. Meera Kulkarni

Assistant Professor